## Pitfalls to Avoid in Designing New Offices

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Recently I finished an assignment with an outstanding group of West Coast physicians. It had taken them 5 years to make up their minds about a new building. One of them said to me, "I hope to hell I never have to go through this again."

He doesn't know it, but he will. And, probably, so will you.

Three out of four physicians we come into contact with are not satisfied with their physical plant—front office and back office.

And one out of every four practices is thinking of making a major facilities move: a new building, new offices, or redesigning of the facilities within the next year.

Typically these practices have gone through a recent change; added partners, additional employees, or increased patient loads. Some have grown like Topsy. Employee is added to employee. Space is made to "stretch and fit."

When new space is considered, the initial plans usually duplicate the current setup, with more space. At that point the alert physicians become aware that their practice is in need of a restructuring involving more than the space. This is because they are not wholly satisfied with their present systems. Maybe it's the telephone-reception-appointment system; maybe it's financial and collection; always it's the question of how productive the physicians are themselves and how well they are utilizing their back office personnel.

So redesigning facilities usually should be preceded by redesigning the practice itself; the way patients are managed; the flow of activities—medical and financial; the utilization of personnel; and simplifying physicians' activities and tasks.

But let's assume that you have done your analysis and redesigned your practice. There is still a facility to be designed and built. What are the major pitfalls?

We have worked with many architects on medical office design. Their experiences tell us that there are three major mistakes to be avoided in the design and building of new medical offices:

1. Inadequate heating and cooling systems. Medical offices have many areas with different sets of traffic: entry and reception room; business office; aisles; exam rooms; consultation rooms; and labs and other service areas. It requires a sophisticated system so that one area is not significantly cooler (or hotter) than another. For example, each exam room, no matter how small, must be capable of having air exchange independent of the next room or hallway.

Therefore, have your lawyer write into any contract a guarantee of heating and cooling performance standards. If your job doesn't specify these standards, you could spend enormous sums of money to correct a faulty system and suffer embarrassing inconvenience. Comfort is the name of the game.

2. Too much noise. In order to maintain a nice, quiet atmosphere, thought should be given to soundproofing or noise dampening. I've been in offices where the heating-cooling duct-work was a conduit of noise from one exam room to another. Embarrassing to say the least! Consider these noise minimizers:

- Insulated doors—not hollow doors—with good mountings. Sliding doors are not good.
- Carpeting. In the hallways, in the exam rooms, and in the reception rooms. The new acrylic fibers allow stains to be wiped off (wool carpeting is not so resistant). A good bet: order carpets with steel fibers woven in for antistatic purposes. A few physicians have even had their carpeting extended part way up the exam room walls to provide wainscoting.
- Drapes. Whether exam rooms have windows or not, sound absorption and a nice decorative touch are provided by ceiling to floor draperies.
- Telephone. Order chimes to replace the noisy buzzer system. Don't have phones in exam rooms. They are patient-doctor interrupters and add noise.

3. Insufficient business office space. We are seeing more and more paperwork processing, more medical records and more equipment in today's medical office. Any two-physician practice now employs a staff person for these purposes that it didn't need 10 years ago. A four-physician group more likely has had to augment its front office staff by even more.

The trend will continue, so make sure you design in an extra 100-300 feet of business space for future needs.

Rule of thumb: one employee requires approximately 100-150 square feet for adequate working space. Each added employee in that work area needs approximately 65-75 square feet of space.

The above points indicate the most frequently made mistakes from an architect's point of view.

## **Dear Editor:**

The recent article by Drs. Amberg and Zboralske, "Autopsie Nouvelle," Arizona Medicine, Vol. 42, No. 5, pp. 296-298, May, 1985. has provoked a certain amount of amazed perplexity on the part of many pathologists in our state. The authors comment on the need for postmortem examinations in cases of sudden or unexpected death as essential. Yet they claim that in hospitalized and diagnostically evaluated patients autopsies are somehow not necessary nor useful; in part because they do not provide physiologic data and, it is said, are unable to provide valid observations because of autolysis.

Autopsies are still, in spite of the authors' redefinition of the word, part of postmortem examinations—examinations which encompass review of medical records, laboratory data, and the results of radiologic and other diagnostic procedures as well as a study of the internal organs and other anatomy exposed by the prosector's dissection. Uncertainty is a part of

any professional practice be it medical, legal, or theological. Because some autopsies do not yield a complete explanation of all aspects of the cause of a particular death, there is no reason to impugn the utility of most such examinations which do provide valuable interpretative information based upon clinical observations during life as well as the postmortem anatomic observations. Apparently not known to the authors is that in certain well defined circumstances certain biochemical or immunologic information can be obtained from postmortem tissues and fluids to aid in comprehensive analysis of the case.

Contrary to the authors' assertions—except in cases of actual postmortem decomposition—the twice alluded to autolysis is not a significant problem in the interpretation of autopsy findings. In fact it is in medical examiner's cases, deemed essential for autopsy by the authors, that autolysis as a result of postmortem composition

may most often obscure diagnosis. Even in such cases with advanced changes accurate diagnosis is more often than not possible.

In autopsies as in any interpreted medical diagnostic procedure there may be differing conclusions based upon technical factors as well as operator skill and experience. In the case of hospital autopsies surprises are, in my experience, still quite common and in the majority of cases more than diagnosis is at issue. Degree of healing, extent of spread of already diagnosed disease and complications of therapy, or negative findings in instances of alleged medical error can also be demonstrated at postmortem examination.

Autopsies, in most hospitals performed by experienced pathologists, provide more than diagnosis and continue to yield unexpected, clinically instructive information that is important for physicians

(Continued on pg. 10)